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ABSTRACT

This model was developed for the basic course in speech communication, based on the Personalized System of Instruction (PSI) introduced by Fred Keller and drawing on research done by Keller and his associates. The new model, the effectiveness of which has been tested over 8 years of programmatic research and refinement, stresses two key elements for use in performance-oriented introductory courses: (1) a formal structure; and (2) competency-based instruction. Under these two broad categories fall five elements of the Structured Model of Competency-Based Instruction (SCMI) model: (1) standardization; (2) a personal hierarchy; (3) reliance on undergraduate teaching assistants; (4) competency-based evaluation; and (5) use of the classroom to apply course material. (Four footnotes and five tables describing various instructional models are included; 36 references are attached.) (KEH)

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# An Alternative to PSI in the Basic Course in Speech Communication: The Structured Model of Competency-based Instruction (SMCI)

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**Abstract**

The model proposed here is the culmination of over eight years of research in instruction in the basic course in speech communication conducted by these researchers. Based on the Personalized System of Instruction introduced by Fred Keller, the model draws on work done by Keller and his associates as well as researchers proposing modifications for speech communication, primarily work done by Seiler and Fuss-Reineck. The model, the effectiveness of which has been tested over eight years of programmatic research and refinement, stresses two key elements for use in performance-oriented introductory courses: a formal structure and competency-based instruction. Under these two broad categories fall five elements of the SMCI model: 1) standardization, 2) a personnel hierarchy, 3) reliance on undergraduate teaching assistants (UTAs), 4) competency-based evaluation, and 5) use of the classroom to apply course material.

# An Alternative to PSI in the Basic Course in Speech Communication: The Structured Model of Competency-based Instruction (SMCI)

The quality of the basic course in speech communication is of primary importance in our field and has been for decades. White, Minnick, Van Dusen and Lewis (1954) state that concern about the basic course in speech communication "antedates the formation in November, 1914, of the National Association of Academic Teachers of Public Speaking, and since that time it has been a perennial subject for articles in our journals and papers at regional and national meetings" (p. 163). From that early beginning through the 1980s, educators have raised many concerns about who should teach the basic course, how the instructors should be trained, what content areas should be included in the basic course, and how teaching in the basic course should be evaluated.

One such area of discussion has been the instructional format used to teach the course. Televised instruction, mass lectures accompanied by small discussion sections, small self-contained classes, and other variations have been used over the years. The preferred instructional format has tended to be smaller, self-contained classes of 20 to 25 students with one instructor. In fact, this format has dominated the literature of the basic course since the 1950s (Gray, 1989.)

In 1963, a method of instruction that differed greatly from methods employing small, self-contained classes was introduced into the field of psychology by Fred S. Keller (1974). This method, which often uses one instructor with seventy or more students, is called the Personalized System of Instruction (PSI). Though the initial application of the PSI model was in psychology, PSI was quickly adopted as a preferred method of instruction in introductory courses in many other disciplines (see Boylan, 1980).

In the mid-1970s, the first research into the application of the PSI model into speech communication courses began to appear in the literature (see, for example, Scott & Young, 1976). Other research quickly followed (Berryman-Fink & Pederson, 1981; Buerkel-Rothfuss & Yerby, 1982; Fuss-Reineck & Seiler, 1982; Gray, 1984; Gray, Buerkel-Rothfuss & Thomas, 1988; Gray, Buerkel-Rothfuss & Yerby, 1986; Hanisko, Beall, Prentice & Seiler, 1982; Hanna & Gibson, 1983; Heun, Heun, & Ratcliff, 1976; Seiler, 1982a, 1982b, 1983; Seiler & Fuss-Reineck, 1986; Staton-Spicer & Bassett, 1980; Taylor, 1986). Much of this research has addressed issues idiosyncratic to speech communication, such as the specialized needs of a performance-based or

skills-oriented course.

The adaptation of the PSI model of instruction for use in speech communication basic courses proposed a dramatic shift away from the small, self-contained sections dominating the field. As would be expected, this instructional model seemed to have both advantages and drawbacks for the field of speech communication. Although the elements of mastery learning that underlie PSI make the model appealing, the significant focus on cognitive learning inherent in PSI poses specific challenges for its adoption in speech communication.

The purpose of this paper is threefold: 1) to examine the PSI model as it has been adapted for speech communication by two major communication programs, 2) to discern the underlying pedagogical elements of a PSI-based method for use in a performance-oriented course, and 3) to propose a new instructional model that may offer some attractive alternatives to models currently employed. It is hoped that this new conceptualization of an instructional model that meets the performance and process-oriented needs of many basic courses in speech communication will be useful to others looking for ways to improve the quality of the ever-important basic course.

## The PSI Method

PSI contains five critical features. Cited by Keller as the "defining characteristics" of PSI, they are the following: 1) mastery learning, 2) self-pacing, 3) a stress on the written word, 4) the use of student proctors, and 5) the use of lectures to motivate rather than to supply essential information. (For more information concerning the PSI model, see Keller, 1968, 1974, 1982; Keller & Sherman, 1974, 1982; Sherman, 1974a, 1974b; Sherman, Ruskin & Semb, 1982.)

Overall, the PSI method of instruction has been noted to offer several advantages for institutions of higher learning: 1) it is based on sound educational principles (being clear about learning objectives and materials to be learned and forcing students to master early material before going on to higher-level material), 2) it attempts to meet individual needs (through self-pacing and the use of one-to-one tutoring), 3) it is cost-effective (larger class sizes can be utilized with no apparent loss, and reason to believe there is gain, in the quality of instruction), and 4) it uses the instructor's time efficiently (since the instructor is used where his/her talents are truly needed, as with motivating lectures and tutoring with students who are not able to be helped by proctors). Such benefits would appeal to any education professional whether it be a teacher concerned with quality instruction or an administrator forced to look at the pragmatic needs of

cost-effectiveness. However, questions concerning possible application of PSI in a field like speech communication arise. Can PSI allow for the needs of a process-oriented content area where the ability to make choices from alternatives is more valued than the ability to label strategies right or wrong or the ability to select examples of types of behaviors from objective-style exams? Can interpersonal, public and group communication skills, all of which require performances and/or application, be integrated into a PSI model?

Many researchers have struggled with such questions, and many presentations have been made at speech communication conventions about the relative advantages and/or disadvantages of the PSI model. Two of the most thoroughly-investigated and reported on PSI-based programs are those at the University of Nebraska-Lincoln and Central Michigan University. These two programs will be analyzed to investigate how they use (and adapt) the PSI model in their basic courses in speech communication.

**Application of the PSI Model in Speech Communication**

Tables 1 and 2 list the elements of the PSI model and describe the ways in which the basic speech communication instructional formats at the University of Nebraska-Lincoln and at Central Michigan University both meet and fail to meet Keller's original five components. As can be seen readily for both institutions, the modifications seem to outweigh the consistencies. Nearly all changes in the PSI model appear to be based on a need to respond to the idiosyncrasies of a performance-based basic course.

**The Nebraska PSI Model**

One of the most complete descriptions of a PSI program in an introductory course in speech communication containing a performance component was given by Seiler and Fuss-Reineck (1986).[1] In this article, Seiler and Fuss-Reineck described the program at Nebraska-Lincoln and contrasted it to the original PSI model envisioned by Keller.

The basic course at Nebraska is described as a hybrid course which includes both public speaking and communication theory; the course seeks to provide students with an understanding of communication theory and an opportunity to improve communication skills. Although many modifications of the original PSI model were made for use in this course, the authors felt that their reliance on the PSI tenets was still very strong. "For our PSI basic speech communication course, then, we keep all five main PSI features: mastery, self-pacing, emphasis upon the written word, use of lectures and demonstrations for motivation, and use of proctors. Addition of the public speaking component meant

modifications were necessary in the self-pacing feature" (p. 130).

The reliance on the basic tenets of PSI noted by the Nebraska team was examined further. In Table 1, the applications of the PSI model are noted in regular print and the modifications of the PSI model incorporated to meet the needs of a performance-based course in speech communication are noted in italics. While the grounding in PSI is obvious, the extensive modifications made also are clear.

Insert Table 1 about here

The Nebraska model has not forced total mastery in any area, although opportunities for repetition and improvement are provided in various ways for various course components. The requirements for the unit tests come closest to satisfying the mastery requirement of PSI, but it is possible for students to pass the course without receiving mastery on all eight tests. Further, the many deadlines for completion of quizzes/tests and speeches restrict the self-pacing element of the PSI model. Likewise, required attendance for orientation days and for speaking days modifies the self-pacing element of the PSI model. Required performances/speeches and suggested activities to be done alone or with others in the classroom take emphasis away from the written word, despite the extensive written material specifically constructed for this course. By adding speech critiquing duties to the proctors' role in the course, Seiler and colleagues have transformed that role from one of organizer, tester, administrator, and question-answerer to one of coach and teacher. These new responsibilities require the proctors to receive considerable training for their role, an escalation of responsibility and influence that is significant. Finally, required attendance days and the potential for added interaction and application of course material in the classroom violate the "lectures to motivate only" component of the PSI model. (For more information concerning the Nebraska model, see Fuss-Reineck & Seiler, 1982; Seiler, 1982a, 1982b, 1983; Seiler & Fuss-Reineck, 1986).

**The Central Michigan University PSI Model**

Based on the apparent success of the Nebraska model, faculty at Central Michigan University also introduced a PSI-based model into the basic course in speech communication (for a complete description of this program, see Buerkel-Rothfuss & Yerby, 1982; Gray, 1984; Gray, Buerkel-Rothfuss, & Thomas, 1988; Gray, Buerkel-Rothfuss, & Yerby, 1986). This course is a multiple-section hybrid course of interpersonal

and public communication theory and skills. Consequently, the focus on application of communication concepts is somewhat broader-based than in the Nebraska model, which is almost exclusively public speaking. The Central Michigan University course is taught by one or two faculty members and as many as 20 graduate teaching assistants (GTAs) in the Master's program.

The major need for adaptation of the model emerged from the large performance component and the heavy emphasis on skills development in the Central Michigan University fundamentals course. These adaptations, which are similar to those made at Nebraska, are indicated in Table 2.

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Insert Table 2 about here

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All five components of the PSI model have been adaped to meet the needs of this course. Many violations of mastery learning are evident: no minimal scores on tests are required; only two speech repetitions are allowed for the first two speeches, except in extraordinary circumstances; students cannot repeat the final speech, except in extraordinary circumstances; and students can rewrite some written assignments but no "mastery" levels are required. With regard to self-pacing, deadlines for the completion of tests, speeches and other assignments have been included and class attendance is required. The need to work with others to accomplish the performance objectives makes it virtually impossible to wholly incorporate the self-pacing aspect of PSI. Although the printed materials developed for this course are extensive, stress on the written word also is violated. Both inclass and out-of-class experiences, where students give speeches and participate in other performance-based activities such as interviews and group discussions, are required. Student proctors are used in a variety of ways inside and outside of the classroom that far exceed typical PSI expectations. As in the Nebraska model, undergraduate teaching assistants (UTAs) coach and evaluate speaking assignments. They also lead group discussions and provide a number of diverse tutoring functions for students in their groups. Finally, although class days do not introduce concepts not covered in the book, their purpose goes far beyond motivation. Class days are used for group activities and group discussions that provide application of course material, thus violating the expectation that lectures should be motivational only.

The adaptations just described stemmed from three broad categories of perceived needs: practical, content, and instructional. The perceived practical needs for deadlines and attendance include restraints imposed

by physical facilities (e.g., the testing center cannot accommodate 1200 students without some staggering of deadlines) and student motivations (procrastination is an undesirable side-effect of self-pacing). The perceived needs of the content in this particular basic course emerge from the interpersonal and public communication skills basis. To demonstrate learning in speech communication requires performances, requires students to apply course concepts in human interaction situations, and requires higher levels of learning than the knowledge and recall objectives typically evaluated by unit tests or quizzes. Finally, the perceived needs for effective instruction of performance-based content seem to call for discussion of ideas, analysis of possible communication strategies and potential consequences of communication choices, and evaluation of communication situations. None of the elements of a sound basic skills course in communication seem to fit the PSI model as conceptualized by Keller and colleagues.

As faculty at Central Michigan University developed their PSI-based model, they were both consoled and challenged by Sherman's (1974b) words in a speech given in 1972. He stated that "the system is related to an underlying theory. The method is not the answer to all of education's ills; it is not offered as a final solution. It should not become the new orthodoxy or be slavishly followed. Hopefully someone here today, after several trials, will devise a variant of the basic procedure that is superior to anything any of us have yet attempted. I would encourage experimentation. On the other hand, again, the system was not devised by chance. It should not be changed for reasons of whim or fancy. The *form* is not important, some of the *functions* are, to the extent that they reflect what we know about the process of learning. Perhaps *the* major virtue of PSI is that it makes the ingredients of learning visible. The results of modifications are immediately apparent in the behavior of individual students....After an initial tryout following the 'formula' they will be ready to strike out on their own. I could wish for nothing more than to someday sit in an audience and hear one of you describe a system of instruction, perhaps designated by a quite different name, which evolved from the possibility for experimentation PSI makes possible [italics in the original]"
(p. 225).

This validation of the desirability of experimentation combined with the analysis of the Nebraska model and the experiences with the Central Michigan University model all led to the same conclusions: The apparent dilution and/or reconfiguration of Keller's five defining characteristics indicate the need to reconceptualize this emerging model in a different

and more fitting way for a performance course. PSI has offered much to the field of speech communication. However, for some basic courses, the adaptations have become cumbersome and have muddied the framework of the original model. These researchers feel that the time has come to examine the "underlying theory" that gives PSI its pedagogical advantages and to identify ways that the form can be modified without harming those desirable pedagogical outcomes.

**The Underlying Theory of PSI**

In Table 3, the elements of PSI are analyzed for the educational and practical benefits offered by the model. Also listed are the limitations that the field of speech communication imposes on the Keller PSI model.

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Insert Table 3 about here

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Mastery learning is pedagogically sound for at least two reasons. First, it requires students to learn course content, at least at the basic knowledge, recall and possibly comprehension levels of learning. No one can leave the course without information. Thus, mastery learning maximizes what students will take away from the course in terms of information. In addition, having mastered material tends to be reinforcing for students, which motivates them to work even harder. Mastery learning is inapplicable to skills-based communication courses, however, because it is not possible to "master" communication. One can always improve. Furthermore, there is no solid way to test "mastery" of communication concepts, because there are no "truisms" that we can validly measure with regard to communication skills.

Self-pacing provides flexibility for student learning rates and styles. Thus, self-pacing contributes to both the personalization aspect of the PSI model and also provides students with the opportunity to do self-directed learning. It also requires individual work, however, which is antithetical to the requirements of interaction and presentation. Thus, self-pacing cannot exist in skills-based speech communication classes in its intended form.

Stress on the written word provides standardized content and flexibility for student learning. It does not allow for application of material, however, which is essential in a skills course.

Frequent interaction with student proctors allows students to obtain information easily and to provide feedback to the course instructor, as needed. Thus, the inclusion of student proctors allows many more students to be enrolled in a section of the course with one faculty member. This very large student:instructor ratio maximizes

cost-effectiveness. Student proctors also provide the affect in the classroom, if they are well-trained and well-suited for the position. Immediate feedback and easy access to someone from a peer group who has knowledge about the course are benefits for students. Use of student proctors to evaluate speeches and coach students requires more careful recruitment, training, and supervision of proctors than in the original PSI model, however.

Finally, the use of lectures to motivate allows students who learn better aurally to grasp material that might escape them in printed form. Sitting in a lecture also might provide motivation for students. It is difficult, however, to lecture in a way that allows students to apply the material clearly to their own communication, which is frequently an instructional objective in speech courses. Furthermore, lecture tends to be a one-way communication phenomenon, which violates some expectations of good communication.

In short, the basic pedagogical elements of the PSI model that appear to provide sound educational outcomes include the following:

1) maximal learning of standardized course content,
2) student reinforcement,
3) self-directed learning,
4) cost-effectiveness,
5) adaptation to individual student needs,
6) development of affect for course content, and
7) availability of more than one learning format for students.

What is needed is a model that incorporates these desirable features of the Keller PSI model while addressing the limitations that are imposed by the practical, content, and instructional constraints associated with the basic performance-oriented course in speech communication.

Seiler and Fuss-Reineck (1986) state early in their article concerning the Nebraska model that adaptations of PSI are acceptable: "the means of presenting the content is determined by selection/modification of all or some of the main features of the PSI method" (p. 132). As can be seen through the previous analysis, the Nebraska model has modified all of the components of the PSI model, as has the model at Central Michigan University. One modification seems slight (the use of proctors) but most changes seem to alter significantly the philosophy behind the PSI system. Such modification makes the term PSI less meaningful as a descriptor for communication purposes and clouds the values and philosophy behind the term.

It also should be noted that continuing to refer to a model that

differs so significantly from the original conception of PSI potentially is detrimental to a performance-based basic course. Administrators may find it difficult to accept an argument for additional money or FTE (faculty teaching equivalents) to teach a course that basically runs itself, as many true PSI courses do. Colleagues at other institutions may fail to read the research that is generated from these courses, because they may have decided for themselves that PSI cannot work in its truest form in this discipline. In this case, semantics is everything, and the label can certainly become the thing. If administrators, basic course directors, and colleagues dismiss the appropriateness of a PSI-based model with inaccurate or incomplete information, they will not keep an open mind to our arguments about the value and effectiveness of our programs. Worse, we will continue to reinvent the wheel, as model after model will be presented which focuses on one or two of the pedagogical issues described earlier and purports to provide something "new" for the discipline. Since it appears clear that a pure PSI system does not meet the needs of a performance-oriented course, and since continued reliance on a label that does not really apply may result in prejudicial views of this course both inside and outside of the discipline, a new model should be proposed that addresses these concerns.

## The New Model: SMCI

Over eight years of systematic research comparing PSI-based sections at Central Michigan University with various formats of nonPSI-based sections documents the relative superiority of the PSI-based model over both a mass lecture/recitation format (Buerkel-Rothfuss & Yerby, 1982; Gray, 1984; Gray, Buerkel-Rothfuss, & Yerby, 1986) and smaller, self-contained sections (Gray, Buerkel-Rothfuss, & Thomas, 1988). In particular, data collection involved the use of several different instruments and three different populations. Whenever possible, PSI-based and nonPSI-based sections were compared directly. Additional information was solicited from individuals working in both programs to aid understanding of the reasons behind the differences.

Six types of data collection have been undertaken so far: 1) questionnaires assessing students' perceptions of their own communication improvement in the course, value of the course overall, and the effect of the course on both self-esteem and communication apprehension; 2) indepth interviews with students who had recently completed the course; 3) grades received by students in the course; 4) student evaluation forms used to assess overall student satisfaction with the course; 5) questionnaires assessing instructor satisfaction with

the formats; and 6) questionnaires assessing the student proctors' perceptions of and satisfaction with the PSI program. Some portion of these data have been collected at least once per year for the past eight years.

The outcomes of these analyses have shown the PSI-based model to be equal or superior to both a mass lecture/recitation format and smaller, self-contained sections with regard to students' perceptions of their communication ability and the effect of the course on improving that ability, effect of the course on self-esteem and communication apprehension, liking for and satisfaction with the course, and learning/performance in the course. Instructors in the PSI-based sections expressed overwhelming preference for the PSI model, as did students. During the one and only semester when students were allowed to preregister for their choice of the PSI or nonPSI model, over 900 students preregistered for the 150 PSI slots while fewer than 200 students selected the nonPSI model.

Following each data analysis step, modifications were made in both the PSI-based model and the alternative model(s) to address those elements found to be most effective and/or desirable, with the intent of continually bringing the two formats closer together. However, continued refinement also has brought with it an awareness on the part of these researchers that the PSI-based model being utilized has moved, and continues to move, away from the PSI model in important ways.

The following sections of this paper describe the Structured Model of Competency-based Instruction (SMCI), which draws heavily on both the PSI system (including the seven basic pedagogical elements described earlier) and the modifications proposed by Seiler and Fuss-Reineck but which puts the needs of a performance course in speech communication at the center of its development.[2] The five components of the new model fall into two general categories: 1) a formal structure and 2) competency-based instruction. The formal structure category of the model includes three components: 1) standardization, 2) a personnel hierarchy, and 3) reliance on undergraduate teaching assistants (UTAs). The competency-based instruction category of the model incorporates two components: 1) competency-based evaluation and 2) the use of classroom instruction to apply information. The characteristics of each component and the degree to which they address the restraints for speech communication courses posed by the PSI model are described in Table 4.

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Insert Table 4 about here

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**A Formal Structure**

The structure component of SMCI refers to three aspects of the model: 1) standardization of course objectives, content, materials, testing, training, supervision, and evaluation; 2) the hierarchical arrangement of personnel in the basic course; and 3) the extensive use of undergraduates as peer teachers, evaluators, coaches, and support people for the students in the course. Together, these elements provide a visible structure for the SMCI teaching model.

**Standardization**. As described earlier, one function of the PSI model is to provide standardization of course content through printed materials and common testing materials. Standardization is central to a competency-based model of instruction also because establishment of some minimal competency criteria requires systematic application of those criteria across all sections of the course. Personnel who work in the course must be trained to recognize the same levels of "competent" behavior in their students. Similarly, students must be asked to perform the same tasks, complete the same assignments, work from the same course materials, and take the same tests in order to achieve at some meaningful level that generalizes to all students in the course.

To achieve this standardization, all course materials such as texts, handbooks, handouts, and activities must be held constant for all sections. Although instructors are encouraged to experiment with teaching styles to find those best-suited to their abilities, they are provided with course materials (e. g. lesson plans, activities with processing questions, daily syllabus, etc.) constructed in sufficient detail that it would be possible to teach the basic course from those materials alone. Similarly, training and supervision activities must be highly-structured and integrated into the program as a whole.

At Central Michigan University, integration of training and supervision is achieved through the creation of two complementary and interrelated training courses: IPC 495 (Communication Facilitation) and SDA 795 (Seminar in Teaching College Speech). The communication facilitation course was designed to train the UTAs who work as small group facilitators, or student proctors, in the basic course. UTAs attend a workshop (approximately four hours per day for two days) prior to the start of the semester and then attend an ongoing course that meets for three hours each week concurrent with their assignment as a UTA. Because of their very significant role in the SMCI model, training must be extensive and ongoing throughout the semester. In particular, UTAs are taught to write and teach lesson plans, select and run small group

activities, write processing questions and process activities, coach speakers, evaluate speeches, provide descriptive and constructive oral critiques of speakers, help students resolve conflicts, tutor students on test materials, and provide small group leadership. IPC 495 is taught by a senior faculty member, called the Undergraduate Teaching Assistant (UTA) Supervisor. Similarly, the teaching college speech seminar, SDA 795, is used to train the GTAs who work in the program. The course begins with a two-week workshop prior to the beginning of the fall semester and continues for three hours per week throughout the semester. GTAs are taught a broad range of topics related to teaching in general (e.g., philosophy of education, the nature of pedagogy, teaching strategies, evaluation) and to teaching the basic course specifically (e.g., how to grade specific assignments, course policies and procedures, activities to use to help students apply the course content). This course is taught either by the Basic Course Director (BCD) or another faculty member.[3] The links between the two courses are multiple and direct. Required texts for each course are the supplementary materials for the basic course: the student handbook and the instructors' manual for the text. In addition, each course uses a detailed handbook of its own which provides a printed source for the information students must apply in class (for a more-detailed description of these courses, see Gray, Buerkel-Rothfuss, & Yerby, 1987).

Personnel hierarchy. Closely related to the integration of UTA and GTA training is the notion of a hierarchical teaching staff for the SMCI course. At Central Michigan University, the basic course is supervised by one individual, the BCD. That person ultimately is responsible for the educational experience of approximately 1200 undergraduates each semester. Clearly, it would be impossible for that one individual to handle that instruction alone without resorting to either a mass-lecture or a televised instruction model.

Insert Table 5 about here

Using the SMCI model, a number of levels are created in the instructional hierarchy (see Table 5). The BCD works with the UTA Supervisor and the faculty members who teach individual sections of the course. The BCD also is assisted by an Assistant Basic Course Director (ABCD) who frequently team-teaches the training course and serves as a liaison between the BCD and others in the structure. The ABCD is a GTA, generally selected from a small group of graduate students who return for a second year. Coordination is achieved through regular consultations

between these two individuals both prior to the beginning of a semester and during the progress of that semester.

The BCD, ABCD, and UTA Supervisor form an upper-level of the information hierarchy for the course, with ultimate responsibility for course decisions falling to the BCD. It is the Basic Course Director's responsibility to select, create, and otherwise provide the materials that instructors will use in their courses, in keeping with the earlier argument for complete standardization across sections. The UTA Supervisor oversees between 25 and 50 UTAs each semester who serve as small group facilitators in SMCI sections of the basic course. This individual also teaches the IPC 495 training course. The ABCD, in close contact with the BCD, works with 20-25 GTAs who teach individual sections of the course and provides assistance to and information for faculty teaching the course, as needed. This person meets with the BCD outside of class to plan, share problems, etc. In keeping with the hierarchical structure, the ABCD serves as a liaison between the GTAs and the BCD, answering questions and handling problems whenever possible. Regular staff meetings are held during the year so that GTAS, the ABCD, the BCD, the UTA Supervisor and faculty teaching the course can share perceptions, plan changes for future semesters, and generally maintain open lines of communication.

The GTAs and the faculty teaching in the basic course supervise three or more UTAs in each of their sections. GTAs and faculty serve as supervisors, trainers, coaches and support people for the UTAs in much the same way as the BCD provides support for the GTAs and faculty. GTAs and faculty also take primary responsibility for the teaching in the course, although UTAs do assume some of that role as they learn skills and gain confidence.

Experience with the 25-50 UTAs in this model has demonstrated a need for an intermediate supervisory role. To facilitate communication and to provide a peer step between the UTAs and their supervisor, the role of UTA Coordinator was created. The UTA Coordinators are chosen by the UTA Supervisor. Coordinators are students who have been UTAs for at least one semester prior to taking on the role of a coordinator; most coordinators have been UTAs for two semesters. The coordinators are assigned approximately 10-13 UTAs and much of the facilitation class serves as a model of the relationship developed in the SMCI model: UTA Coordinators work with UTAs in the facilitation class and UTAs work with students in the basic course. UTA Coordinators meet with the UTA Supervisor outside of class time to plan, share problems, etc. Often, problems can be solved between the UTA Coordinators and the UTAs

before the UTA Supervisor ever has to get involved.

Although the faculty and GTAs form the teaching staff for the course, much of the responsibility is given to the UTAs. In fact, research suggests that the UTAs may be the central reason for the success of the SMCI model (Gray, 1984). The UTAs serve as coaches, small group facilitators, sounding-boards, problem-solvers, and general sources of information and support for the undergraduate students who are in their groups. Much class time is allotted to small group interaction which is facilitated by the UTAs.

The students, then, are at the base of a not-very-tall-but-very-broad hierarchy of instruction. The hierarchy is kept fairly short to reduce distortion of information; much of the information that flows in either direction is put into writing to further reduce this potential. The breadth of the hierarchy allows for strength in numbers. If one UTA has a question, that individual has many possible sources of information. The breadth also allows for satisfaction at all levels, since most people perceive themselves to have (and, in fact, do have) real and significant responsibility for the success or failure of the program.

Overall, the use of a hierarchical model is desirable for a number of reasons and addresses at least one of the pedagogical elements discussed earlier: cost-effectiveness. As Seiler (1982a) has argued, using UTAs allows for larger sections of the basic course, thus allowing programs to utilize faculty and GTA time more effectively and to generate more student credit hours for less faculty time equivalents. In the Central Michigan University model, faculty teach sections of approximately 76 students and GTAs teach sections of 34-40. This cost-effectiveness is maximized when the UTAs are recruited for credits rather than money.

The use of a formal hierarchy also provides a systematic way for information to flow through the staff. Table 5 provides a pictorial representation of the way information is disseminated through the system. Except for the students enrolled in the course, each position on the chart both responds to and is responsible for one or more specified individuals. Thus, the BCD can quickly disseminate information by merely making sure that people at the next level (the UTA Supervisor, SMCI faculty and/or the ABCD) receive the necessary information in sufficient numbers or detail to pass along. At Central Michigan University, day-to-day course materials are frequently distributed to UTAs in their training course by the UTA Supervisor, urgent information about the course is provided in a "Daybook" which all faculty and GTAs who teach the course are required to read each morning, and student handouts are quickly and efficiently distributed by the UTAs to their group members.

There is never any question about how to assure that information will reach its intended receivers in a timely fashion.

In reverse order, student complaints are recognized and handled quickly because of the ready-access of the UTA. UTAs share student difficulties with each other and with their coordinator and, whenever possible, problems are solved at that level. When the difficulties pertain to broader issues that cannot be solved in IPC 495, the UTA Supervisor and BCD confer. The result is that many issues are handled much more quickly than they would be if students had to seek out the BCD themselves. Students perceive themselves as having considerable opportunity to be heard in the SMCI model (Gray, 1984).

Integration of UTAs.[4] The use of student proctors was touted by Keller and Seiler as being an integral part of the PSI and modified-PSI programs. In the SMCI, the use of UTAs is viewed as a critical component of the model which allows SMCI to address three of the PSI pedagogical elements described earlier: adaptation to individual students' needs, development of affect for the course, and availability of more than one learning format for students.

Sherman's (1974b) description of the use of proctors for testing, scoring and tutoring on a personal level is not an accurate description of the use of UTAs in the SMCI. The UTAs are assigned to a specific section of the basic course which they are expected to attend daily. Each UTA is assigned specific students by the course instructor who become a UTA group (size ranges from 7 - 11 group members). This group remains intact throughout the semester and assembles frequently to work on inclass activities, give practice speeches, and study for unit tests. Some time is usually allotted to UTA-group activity each day, with some days being devoted entirely to UTA-group meetings. On some days, UTA participation in the class is minor (they take attendance, pass back papers, check with group members for problems) and sometimes this participation is major (they hear and critique speeches, teach lessons to the small group and/or the entire class, critique outlines). Because of the contact that UTAs have with their students on a daily basis, the UTAs can check for problems, provide information, and generally help the students in their groups. This one-to-one attention provides the personalized instruction component of PSI and, as shown in past research on the SMCI model, provides both affect and the opportunity for adaptation to individual students' needs (see Gray, 1984).

The UTAs have little to do with the testing procedures, which will be explained later. They do tutor students on a personal level. They are available for help by students having trouble with the tests and many

UTAs offer study sessions outside of class with their assigned students. This availability provides a supplement to the written material, thus providing more than one learning element for students. While the UTAs do not assign grades to any assignments, some of them do "pass" students on the first two speeches and/or require the students to repeat these speeches. UTAs also evaluate "first drafts" of speech outlines and other written assignments in the course.

The outcomes for the UTAs in this program are both immediate and multiple. By assuming responsibility for some of the teaching, coaching, and support activities in the classroom, the UTAs grow in ability and maturity. This maturity makes for more satisfied and better overall students, and the department gains the reputation this solid internship provides. In addition, UTAs frequently decide to enter the Master's program, which provides the department with better-trained GTAs who, in turn, provide leadership and positive role models for their own UTAs. And the cycle continues. (For a complete description of advantages of using UTAs, see Gray & Buerkel-Rothfuss, 1989).

Of course, the need for effective recruitment and supervision is crucial to the success of the model. Potential UTAs with a minimum GPA of approximately 2.5 overall and 3.0 in communication courses (on a 4.0 scale) interview with the UTA Supervisor. Faculty /GTA names provided by the prospective UTA are contacted for personal recommendations; entrance into the program is considered an honor and every attempt is made to recruit students who will be effective in this role. To reinforce the UTAs' progress and to avoid problems before they occur, UTA Coordinators meet with the UTAs regularly and schedule individual interviews with their assigned UTAs twice during the semester.

These three components of the model, the use of standardized course materials, the implementation of a hierarchical teaching staff, and the use of UTAs, provide its formal structure. Together, they define the system in which the students enrolled in the course function. The second general category, competency-based instruction, includes the learning components that make up the content of the course.

**Competency-based Instruction**

Currently, the term "competency" has many meanings and many connotations in speech communication education. For some, competency implies having knowledge of some set of skills, whether or not a person is able to perform those behaviors (see, for example, McCroskey, 1982). Thus, a competent student in speech communication may know the various components of a speech without actually delivering that speech. For others, "competent" implies some minimal level of expectation. A

student becomes a "competent" driver when he or she passes the written and driving exams to earn a driver's license. As such, competency becomes some bottom-line expectation for performance beyond which many people can, but need not, perform to be considered "competent."

There has been a strong movement in the 1980s toward certifying competence in basic skills at high schools, colleges, and universities in this country, and competence in speech communication is frequently included in that list of abilities (Allen & Brown, 1976; Allen & Wood, 1978; Rubin, 1982). Although there are as many definitions for what it means to be a "competent" communicator as there are people willing to define the term (see, for example, Spitzberg & Cupach, 1984), the perception that communication competence is important must exist for so many college administrators to insist on its achievement.

From the perspective of a hybrid skills course, competency-based instruction involves two dimensions of activity: 1) establishment of some minimal criteria for performance by which competence will be evaluated and 2) classroom application of course conceptss to enhance students' understanding of the communication process and the likely impact of those concepts on their communication skills. The former allows for evaluation of whether or not the course is meeting its objectives; the latter allows students to assess the degree to which course material impacts on their own lives.

**Comptency-based Evaluation.** Whatever the definition, it should be clear that competency-based learning differs from mastery learning in a very significant way: a person need not be "perfect" to be considered "competent". It also should be clear that the latter is a more appropriate scale by which to judge students in a performance course than the former. Perfect scores on objective tests of knowledge may provide some indication of a person's recall of speech communication terminology, but a "perfect" speech is probably far from the average student's grasp, if, indeed, criteria could be established to reliably and validly measure such perfection. In truth, most speech educators would be hard-pressed to provide a definition for a "perfect" speech and/or the operationalizations which would allow GTAs or faculty to assess a perfect speech, despite the large number of critique sheets in use in speaking courses around the country. In addition, agreement among speech educators about these perfect criteria would be difficult, if not impossible, to obtain. Where other potentially even more ambiguous forms of communication performance are evaluated (e.g., group discussions, dyadic interactions, interviews, problem-solving simulations), agreement among educators concerning the evaluation

criteria can become so subjective as to disappear entirely. To say that a student must "master" the skill of interpersonal communication, or even a subskill such as listening, is to denounce the arguments that human communication can always be improved and that competent communication varies with context. Thus, a model which calls for some minimal level of competency to be established and met by students in a course seems vastly more appropriate for speech communication than one which requires "100%" mastery.

In the course at Central Michigan University, each assignment is structured so that students may strive for a specified level of competence, which corresponds to a specific letter grade. The baseline is established at the grade of "C," which is the operational definition of "minimal competence." Performance objectives are clearly stated for each assignment. Thus, students who wish to earn a C on a given assignment know precisely what they must do. Students wishing to earn higher grades attempt more tasks and/or more challenging tasks and meet the increasing expectation for quality thinking, writing, and application of content for each task. Thus, achievement for performance assignments is based on the number of objectives met for each assignment and the degree to which they were met, rather than on 100% scores on tests.

In keeping with the desirable function of a competency component, students are encouraged to repeat speeches and other assignments to maximize learning and reinforcement. All students repeat the first speech to build confidence and allow for improvement. When students do not achieve at least a "C" evaluation on their second speech, that assignment must be repeated also.

Of course, there is some need for students to learn and be able to use terminology in the discipline. For that reason, objective tests also are incorporated into the model. For each test, twenty-five objectives have been created, and these objectives are spelled-out in the student handbook, complete with study guides. Students take these tests outside of class time at a testing center on campus. Ten computer-generated forms of each test are available so that students may retake tests as many times as necessary to achieve the letter grade that they desire, within specified time limits. Each question on each form of a test corresponds directly to a behavioral objective in the study guide. (For example, the first objective requires students to recognize the eight components of the communication model presented in the text; the first question on every form of the first test measures the students' ability to meet that objective). In all, students must deal with 100 such learning

objectives to do well in the course. Mastery is not required, nor is it necessary for students to achieve a specific letter grade on a prior test before moving on to the next test. Deadlines are established so that the tests will end within specified time frames, forcing students to keep up with the material that will be applied in the classroom.

Overall, the competency component of the SMCI model addresses three of the pedagogical elements described earlier. First, the ability to repeat assignments maximizes learning of both conceptual and behavioral course content. When there is standardization across sections, students leave the course with a common body of information. Second, the ability to repeat assignments until competency is met is reinforcing for students because they know that they can succeed. The ultimate success itself is the best motivator for future assignments. Finally, the need to repeat some assignments and the ability to work ahead addresses the self-directed learning function of PSI.

**Classroom Instruction to Apply Information.** One of the criticisms often leveled at the basic course by students centers on the "obviousness" of the material. The familiar arguments that "we've been talking since we were two so why do we need this material?" or "this is nothing more than common sense" have plagued speech communication specialists from time immemorial. A clear task for the discipline has been to inform people about how much more there is to being an effective communicator than just putting words together. In addition, it seems clear that the mere having of knowledge is different than being able to make conscious choices concerning communication strategies; in other words, the ability to know what is effective and being able to apply that knowledge effectively are very different.

It has been our observation that students need the most help in this last area. Written materials are sufficient for conveying information but true skill comes with practice in application. Application may take the form of an exercise that uses content in a roleplay or activity or in the form of a performance such as a speech or group report. What both provide is a way to use the content of the course in a meaningful way under critical guidance. This component of the SMCI model addresses the last pedagogical element of PSI described earlier: availability of more than one learning format for students. Material can be incorporated into long term memory best when it can be put into practice.

Much of the content of hybrid basic courses in speech communication deals with the realm of interpersonal and small group communication. Using the common relationship of the classroom enables the material to take on more of a real-world usefulness. The classroom interaction

allows students to experiment with the application of new strategies in a less threatening atmosphere than their real lives. Without these opportunities for application, the material well may fit the criticism of being "obvious" or "common sense."

Finally, perhaps the most motivating aspect of any instruction would be the utility of that information to the students' lives. It may be justifiable to argue that learning the terminology and being able to link researchers with their conclusions are valid objectives for an introductory course in psychology or that learning the elements on the periodic table is a reasonable objective for beginning chemistry, and the same may hold true for speech communication to some extent. However, to be useful, communication theory and research should go beyond this expectation and be applied to the students' communication experiences and abilities. The application provides the "so what?" experience for students in our introductory courses. The emphasis on application also should serve as a motivational factor, which is one of the emphases stressed in the PSI model and one which is appropriate for our needs as well.

## Conclusion

The model proposed here, the SMCI, meets the needs of a performance-oriented course by using two categories of elements: formal structure and competency-based instruction. To the degree that speech educators already agree with the arguments that 1) sections of a multi-section basic course should be standardized and 2) undergraduate peer teachers can provide assistance in the basic course, these instructors already believe in a formal structure. Further, to the extent that speech educators agree that 1) some flexibility which allows students to "work ahead" is desirable, 2) students should be able to repeat work if by so doing they will learn and retain more of the information, 3) minimal standards of achievement should be established for basic courses, 4) communication concepts are best learned experientially through some form of direct application, and 5) performance activities require class attendance, these instructors already are sympathetic to the arguments for competency-based instruction.

The SMCI model offers a rigorously-tested, pedagogically-sound alternative to PSI-based models. This model, which incorporates all seven of the desirable elements of PSI while addressing the special needs of this discipline, can be integrated fairly easily into any speech communication program, with or without graduate teaching assistants. Yet with all these advantages, all that is needed is the selection of some

standardized course materials, development of a recruitment procedure and training course for the UTAs, and identification of personnel willing to put the model into operation and supervise its functioning.

The time has come to move away from the PSI label and switch to a model which more completely addresses the needs of a performance-based course. The SMCI model, which has been evaluated rigorously and which has received consistently high marks from students, faculty, and administrators, is one such alternative.

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## Author Notes

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## Footnotes

[1]While most of the information reported here is drawn from this article, additional information from one of the authors, Bill Seiler, in the form of a letter (dated February 17, 1989) and a phone conversation on March 3, 1989, provided more current information about the model at Nebraska. Although this updated information does not appear in print, it was used to provide the most recent comparison/contrast of the models possible.

[2]The SMCI model has only been partially incorporated into the basic course at Central Michigan University, due to the large size of the population for that course. Total implementation would require recruitment, training and supervision of over 100 UTAs, which is a virtual impossibility unless funding becomes available to pay them for their work. In addition, not all incoming GTAs have the capability of working as both teacher and UTA supervisor/trainer/evaluator/support person. Typically, only second- and later-semester GTAs are allowed to teach in the SMCI program, which limits the size of that teaching staff.

[3]During some years, a faculty member other than the basic course director teaches the SDA 795 course. When that happens, that individual is added to the personnel hierarchy as another potential information source for the GTAs.

[4]Each winter semester, interns from the secondary education methods course in speech communication also are integrated into the teaching model. Although these individuals do not assume the responsibilities typical of the UTAs, they do provide student/peer input into the classroom.

**TABLE 1: Comparison between the Keller PSI model and the University of Nebraska PSI model for speech communication:**

| KELLER'S PSI MODEL | THE NEBRASKA-LINCOLN PSI MODEL |
|---|---|
| **1. Mastery learning**<br>(achieving 100% on quizzes) | **1. Mastery learning**<br>a. if student does not score at least 13 points (out of 16), must retake entire quiz; if student scores 13 or higher, must retake only items missed until mastery is achieved; *student may skip a quiz*<br>b. *20 point reduction for each quiz not completed with mastery*; 10 point bonus added to final score if all eight quizzes are completed with mastery<br>c. *review tests may be taken twice; highest score is recorded (91% or higher = A; 82% or higher = B, etc.)*<br>d. *if time permits*, may take final second time; *highest score becomes final grade on exam (no minimal grade required)*<br>e. may repeat speeches, *but need not achieve any minimal standards; speeches receive one of four possible "grades" which translate into number of points added to final grade; points subtracted if one speech is missed entirely; two missed speeches (of three) = course failure* |
| **2. Self-pacing**<br>(total control over pace of course) | **2. Self-pacing**<br>a. *specific deadlines for all 3 speeches, unit 2 quiz, all 3 review exams, and the final exam* (can work ahead on quizzes/tests)<br>b. *cannot work ahead on speeches because certain days are designated as speaking days*<br>c. *must also attend 3 orientation days, a lecture prior to each of the 3 speeches, and performance days; students earn 5 points for attending the 3 lectures preceding the speeches*<br>d. *class time may be scheduled for group activities; workshops are also scheduled but attendance is voluntary*<br>e. *recommended deadlines are provided for all assignments; if students fall behind recommended deadlines, they are required to attend class until they catch up (no point reductions occur if they do not attend class, but they may receive a low or failing grade in the course)*<br>f. *course must be completed by the end of the semester* |

| KELLER'S PSI MODEL | THE NEBRASKA-LINCOLN PSI MODEL |
|---|---|
| **3. Stress on the written word**<br>(all course content is available in printed format) | **3. Stress on the written word**<br>a. textbook is specifically designed for this course<br>b. handbook is specifically designed for this course<br>c. videotapes and other materials were also created<br>d. use objective-based study guides<br>*e. study guides also include suggested activities for each unit*<br>*f. some supplemental materials deal with topics that may be difficult for students to master alone (e.g., simulation activities and communication apprehension)*<br>*g. the public speaking component incorporates a reliance on some performances* |
| **4. Student proctors**<br>(grade tests, tutor, answer questions, serve as liaison to instructor, generate interest in and enthusiasm for course) | **4. Student proctors**<br>a. grade tests, record scores, and tutor<br>*b. evaluate speeches and give feedback*<br>*c. attend training sessions and have assignments that they are required to do as part of their internship* |
| **5. Lectures to motivate**<br>(optional attendance; used for students who would benefit from hearing a lecture over material) | **5. Lectures to motivate**<br>*a. 3 lectures are presented to explain assignments*<br>*b. lectures are required (e.g. before speech days)*<br>*c. "lecture" includes oral discussion and opportunity to ask questions*<br>d. one possible outcome of lectures would be motivation |

**TABLE 2: Comparison between the Keller PSI model and the Central Michigan University PSI model for speech communication:**

| KELLER'S PSI MODEL | THE CENTRAL MICHIGAN UNIVERSITY PSI MODEL |
|---|---|
| **1. Mastery learning**<br>(achieving 100% on quizzes) | **1. Mastery learning**<br>*a. need not achieve 100% on unit tests (highest grade is recorded; 100% = A)*<br>*b. two missed unit tests = course failure*<br>*c. may take unit tests as many times as desired (only once each day), within specified time frame*<br>*d. must achieve "passing" grade on first and second speeches or repeat at least once (often twice)*<br>*e. may not repeat final speech, which is the only graded speech assignment*<br>*f. must redo one speech outline until a grade of "C" is achieved*<br>*g. may only redo written assignments if instructor has time for evaluating all potential resubmissions* |
| **2. Self-pacing**<br>(total control over pace of course) | **2. Self-pacing**<br>a. can work ahead on unit tests<br>*b. specific deadlines for all assignments; late penalties*<br>*c. cannot work ahead on speeches because certain days are designated as speaking days*<br>*d. course must be completed by the end of the semester*<br>*e. attendance is required (point reduction for excessive absences)* |
| **3. Stress on the written word**<br>(all course content is available in printed format) | **3. Stress on the written word**<br>a. textbook is specifically designed for this course<br>b. handbook is specifically designed for this course<br>c. videotapes and other materials were also created<br>d. use objective-based study guides<br>*e. inclass activities, simulations, etc. apply material* |
| **4. Student proctors**<br>(grade tests, tutor, answer questions, serve as liaison to instructor, generate interest in and enthusiasm for course) | **4. Student proctors**<br>a. tutor, help students study for tests, answer questions<br>*b. evaluate speeches and give feedback*<br>*c. run small group activities*<br>*d. coach speeches*<br>*e. run classroom activities, group discussions* |
| **5. Lectures to motivate**<br>(optional attendance; used for students who would benefit from hearing a lecture over material) | **5. Lectures to motivate**<br>a. inclass lectures cover text material only<br>*b. lecture topics not known ahead of schedule*<br>*c. "lecture" includes oral discussion and opportunity to ask questions* |

**TABLE 3: Components of Keller's PSI model and their corresponding pedagogical advantages**

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**1. Mastery learning:** PEDAGOGICAL ADVANTAGES

a. provides knowledge of content and at least short-term recall of content
b. when students master a unit, they receive high grades, which are rewarding and motivating
c. ability to repeat quizzes until mastery is attained equalizes the learning process for students (some people may take longer, but they can eventually master the content as well as the faster learners)
d. requiring mastery of an area of content provides a common core of knowledge across sections of that course
e. mastery maximizes learning

LIMITATIONS FOR SPEECH COMMUNICATION:

a. cannot "master" communication skills
b. communication ability can always be improved

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**2. Self-pacing:** PEDAGOGICAL ADVANTAGES

a. allows student to take longer with difficult material
b. allows student to move quickly through easy material and/or material already mastered
c. allows student to tailor the demands of the course to his or her own work schedule
d. provides students with a sense of control over their lives
e. develops self-directed learning
f. allows some adaptation to individual needs

LIMITATIONS FOR SPEECH COMMUNICATION:

a. procrastination
b. does not provide classroom interaction
c. cannot do simulations/activities/etc.
d. does not provide audience for performances

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**3. Stress on the written word:** PEDAGOGICAL ADVANTAGES

a. provides standardization of content
b. makes material available for review and study at all times (unlike lecture, which is transitory unless taperecorded)
c. provides flexibility for students; class attendance is not required if all materials are in print

LIMITATIONS FOR SPEECH COMMUNICATION:

a. can provide terminology, etc. but not application
b. not visual; learning about performing requires videotapes, etc.; live samples may even be preferable

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**4. Use of student proctors:** PEDAGOGICAL ADVANTAGES

a. provides affect
b. provides immediate feedback
c. provides resource people when instructor is unavailable
d. provides accountable learning for less cost (much larger student: faculty ratio)

LIMITATIONS FOR SPEECH COMMUNICATION:

a. need to train more rigorously
b. need to recruit and supervise more rigorously

5. **Lectures to motivate:** PEDAGOGICAL ADVANTAGES
   a. allows for aural learning
   b. provides some interaction with others in course
   c. provides boost for students when enthusiasm begins to lag

   LIMITATIONS FOR SPEECH COMMUNICATION:
   a. need to go beyond concepts and terminology to application
   b. need to be two-way or discussion-oriented to fit with principles of the field

**TABLE 4: Components of SMCI and Relative Advantages for Speech Communication Performance Courses** ***(Aspects of SMCI that address limitations of PSI are in italics.)***

**A FORMAL STRUCTURE**

**1. Standardization:** PEDAGOGICAL ADVANTAGES
- a. provides common learning objectives, assignments, grading criteria, and experience across sections
- b. provides core content material which is available for review and study at all times
- *c. creates set of deadlines to reduce procrastination*
- *d. assures standardization of recruitment, training and supervision for GTAs and UTAs in the model*

**2. Personnel Hierarchy:** PEDAGOGICAL ADVANTAGES
- a. provides common training for personnel working in the course
- b. creates hierarchy of responsibility which facilitates dissemination of information and collection of feedback
- c. distributes power, responsibility, and satisfaction among many individuals
- *d. creates framework for training, recruiting and supervising student proctors (UTAs)*

**3. Use of UTAs:** PEDAGOGICAL ADVANTAGES
- a. provides affect
- b. provides immediate feedback
- c. provides resource people when instructor is unavailable
- d. provides accountable learning for less cost
- e. provides coaches, trainers, and support people for students
- f. allows some adaptation to individual student needs
- g. provides students with opportunity to learn in more than one format

**COMPETENCY-BASED INSTRUCTION**

**1. Competency-Based Evaluation:** PEDAGOGICAL ADVANTAGES
- a. provides knowledge of content and at least short-term recall of content
- b. when students achieve competency on an assignment, they receive at least a grade of "C", which can be rewarding and motivating; knowing what is required for an "A" is further motivating
- c. ability to repeat quizzes until desired grade is attained equalizes the learning process for students (some people may take longer, but they can eventually achieve the same grades as the faster learners)
- d. requiring competency in an area of content provides a common core of knowledge across sections of that course
- *e. requiring competency accounts for inherent difficulties in "mastering" communication while still maximizing learning*
- *f. speaking in terms of "competency" rather than "mastery" conveys fact to students that communication can always be improved*

**2. Use of the Classroom for Application:** PEDAGOGICAL ADVANTAGES
- *a. provides classroom interaction/discussion*
- *b. provides opportunity for students to do activities, simulations, etc.*
- *c. provides audience for performances*
- *d. provides opportunity for aural and visual learning*

**Table 5: The Hierarchical Format for Information Flow in the SMCI**